

ABSTRACT

A video coding system that codes video objects as scalable video object layers. Data of each video object may be segregated into one or more layers. A base layer contains sufficient information to decode a basic representation of the video object. Enhancement 5 layers contain supplementary data regarding the video object that, if decoded, enhance the basic representation obtained from the base layer. The present invention thus provides a coding scheme suitable for use with decoders of varying processing power. A simple decoder may decode only the base layer of video objects to obtain the basic representation. However, more powerful decoders may decode the base layer data of 10 video objects and additional enhancement layer data to obtain improved decoded output. The coding scheme supports enhancement of both the spatial resolution and the temporal resolution of video objects.